CITY OF SASKATOON

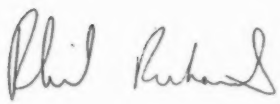
2007 PRODUCTIVITY IMPROVEMENTS

Presented to City Council - March 17, 2008

INTRODUCTION

With the support of the Saskatoon Chamber of Commerce, the City of Saskatoon will strive, on a continuous basis, to improve efficiencies and to work more effectively.

This annual report summarizes the improvements made by each of the five departments in 2007.



Phil Richards
City Manager

COMMUNITY SERVICES

Automation of Plumbing Permits and Inspections

The automated Plumbing Permit and Inspections Program was implemented and completed in 2007. The system replaced the current manual system that was very labour intensive with respect to application processing, cash handling, inspection bookings, inspection reports, and general program statistical reports. In addition, the plumbing contractors have the option of paying for the plumbing permit on account and accepting permit applications via fax or email. Prior to automation, the plumbing contractors were limited to submitting their applications, along with payment of fee, via regular mail, courier, or in person.

Enhancement to the Zoo Animal Records System

The Zoo Animal Records System tracks animal medical, nutritional, and genealogy information for the animals at the Saskatoon Forestry Farm Park and Zoo. A major enhancement to the system was completed in 2007 that allowed a staff member to update the medical and nutritional information for multiple animals at one time. In the past, each animal record would have been updated individually. The enhancements increased staff efficiency and reduced errors.

Staff Scheduling System

The Leisure Services and Community Development Branches required a system to assist in the scheduling of hourly employees. The current staff scheduling system was built in 1995 and required extensive modification due to changing business needs. Because of the extent of the changes, and the introduction of new technology, it was decided a complete rewrite of the system would be the best option. In 2007, the new staff scheduling system, now called the Employee Scheduling System, was implemented in the Community Development Branch. Efficiencies should be gained by allowing scheduling staff to more effectively set up and manage staff schedules and reduce errors. The system will be implemented within Leisure Services in 2008.

New LeisureCard Program

A new LeisureCard program was introduced in 2007 – accessibility cards were made available to people who qualified through social assistance and the purchase a bus pass. In the past, eligible applicants were provided with courtesy passes. The introduction of the program eliminated a significant amount of data entry and manual processes associated with the issuance of courtesy passes. The introduction of the new cards increased staff efficiency and reduced errors.

POSSE System for Housing Incentive Programs

A new application to track, monitor, and report all downtown and affordable housing incentives was developed. This application included an automated reporting tool for quick up-to-date reports. This new application reduces staff time spent compiling information from ten hours at $26.26 per hour to ten minutes for a saving of $258.22 per application. It also improves customer service, as tracking information can be made available instantly.

Linking Homeless Individuals and Families Information System (HIFIS) to State of Housing Report

A support agreement was signed with a consultant to support a system which regularly updates the housing reports from City administration and community sources. This new system saves $20,000 on consultant fees. Staff time involved in collecting information takes two to three days and costs are approximately $500 to update the State of Housing Report.

Crime Prevention Through Environmental Design and Neighbourhood Safety

On October 24, 2007, City Council approved formalizing the principles of Crime Prevention Through Environmental Design (CPTED) within the City of Saskatoon. All civic projects will now be reviewed to ensure they incorporate these principles at the design stage. This ensures that issues of safety and perceptions of safety are considered before completion of the final project design, and has the potential of reducing the opportunity for crime to occur in and around the project site. Long-term staff time and money directed at ameliorating issues after project construction will be reduced.

Neighbourhood Safety Implementation is now tracked in POSSE (work management tracking system database). Custom reports can now easily be created for administration to gauge progress in each neighbourhood, which reduces staff time required to compile reports, and allows priorities to be identified and addressed more quickly.

CORPORATE SERVICES

Electronic Funds Transfer

An Electronic Funds Transfer process was implemented whereby monthly debt service payments (interest and principal payments) to holders of City of Saskatoon debentures are delivered electronically rather than by cheque. This change has resulted in reduced opportunity for cheque fraud, and increased efficiencies through reduced administration time and costs in the preparation and mailing of cheques.

Trailer Licensing System

A new Trailer Licensing system was implemented, into which is entered all information relating to monthly trailer license fees. The largest time-saving feature in the system development is the automation of the accounts receivable statements. Reports which provide detailed information to customers in support of fee collections are now easily generated.

Mailing of Parking Ticket Summonses

Recent changes to legislation governing parking tickets allows for the summonses to be mailed by regular mail rather than by hand-delivery. Implementation of this change has resulted in reduced administration time by Treasurer's staff of approximately two hours per week.

Automation of Sewer Surcharge Calculation and Billing

Complete automation of the calculation and billing of sewer surcharge was implemented, replacing the need for manual calculation and input of the charges to the billing system. This project has greatly reduced the risk of human error and staff time savings by approximately six hours per month.

Automation of Light and Water Refund Cheque Process

The automation of the utility (light and water) refund cheque process has eliminated the previous need for manual processing, resulting in time savings for Treasurers' staff of one to two hours weekly.

Bar Coding on Utility Statements and Property Tax Notices

A technology improvement in our Customer Service area was implemented that allows the printing of a bar code on internal reprints of utility statements and property tax notices. The reprints are provided to customers coming into City Hall to use for payment at the cashiers. The bar code includes the account number and amount owing and can be scanned, eliminating manual input. The result has been gained efficiencies through minimizing errors and time saving.

Automation of Accounting Procedures

Revision and automation of accounting procedures resulted in efficiencies (approximately three weeks) related to data input on various forms required by Canada Revenue Agency (T4s and TD1s), internal staffing action forms, and the petty cash reimbursement process.

FIRE AND PROTECTIVE SERVICES

Computer Aided Dispatch System

In December 2006, Council approved the purchase of a new computer aided dispatch system to replace the aging CriSys System. In 2007, the Department purchased and installed the Fire Dispatch Management (FDM) Computer Aided Dispatch System.

This new system, developed and maintained in Western Canada, is widely used by departments throughout the country and the United States. The system provides priority dispatch capabilities in that it selects the closest and appropriate apparatus to service the type of emergency call, resulting in quicker emergency call assessment and dispatch time. In addition, the records management portion of the system will allow Department management to better record critical incident information and Department activity resulting in better report generation.

An added feature of the system is that FDM has developed internal corporate staff in order to provide technical support, in cooperation with the system provider, on a 24-hour basis.

New Fire Inspection Database Program

In 2007, with the assistance of the Corporate Information Services Branch, the Department developed and implemented a new Fire Inspection Program for use by the Fire Prevention and Investigation Division.

The new program provides a number of advantages over the previous process of using hard copy inspection forms. Each member of the inspection staff uses a portable laptop and printer, eliminating the need for, and expense of, triple copy paper forms. This allows for immediate entry into the fire inspection database and the capability to email completed inspections to property owners. The new system speeds up turnaround time to provide accurate information for file searches by approximately one hour per search, and allows for much faster report generation.

Property Maintenance and Nuisance Abatement Bylaw 8175

In 2006, City Council approved amendments to Property Maintenance and Nuisance Abatement Bylaw 8175 to include graffiti. The program was very successful and continued in 2007. Saskatoon Fire & Protective Services has identified approximately 243 locations and properties affected by the illegal application of graffiti, including the issuance of 186 Orders to Remedy Contravention to remove the graffiti. The locations of graffiti were identified by neighbourhood inspections and complaints.

Emergency Measures

The Emergency Planning Committee, in conjunction with the Emergency Measures Coordinator, approved and implemented a two-year planning and training calendar for senior management and key personnel in the corporation. They have also approved a stand-alone Emergency Operations Centre (EOC) being established at Fire Station No. 9. The Emergency Measures Coordinator has met twice with each of the department heads and senior staff to review and revise emergency plans, resource lists, and human resource plans.

Tabletop exercises have been conducted with Infrastructure Services and Utility Services. Two full-scale exercises were conducted in 2007 (Operation Little Red School House and Operation Crushed Can), with two more planned in 2008.

The Emergency Measures Plan has been updated to include three levels of activation for the EOC. Work is in progress on the Volunteer Group Activation Plan, with approximately 80 volunteers ready for deployment.

Work continues with the North Saskatoon Mutual Aid Committee. Individual communities are updating fan-out lists, resource lists, and emergency planning bylaws.

The Emergency Measures Coordinator developed a series of policies and operating guidelines as part of the City's overall Pandemic Planning Process. A working committee, comprised of operations level managers from throughout the corporation, has been formed and will begin to work on the corporate implementation strategy for pandemic preparedness efforts.

INFRASTRUCTURE SERVICES

Snow Route Temporary Parking Bans

The implementation of the snow route temporary parking bans reduced the amount of time required to clear priority streets designated as snow routes by approximately 10% to 15%, depending on the amount of snow accumulated; and allowed snow clearing crews to effectively store the snow adjacent to the sidewalk. It also provided, where possible, additional parking spaces in front of properties once the snow was removed.

Reinforcement of Bridge Deck at Circle Drive and Clarence Avenue

Glass fibre reinforcing was used on the bridge deck at Clarence Avenue and Circle Drive, which will reduce future maintenance costs estimated at approximately $1,100 per year, over the life of the structure.

Recycled Concrete

The use of recycled concrete (crushed concrete), instead of base gravel, in the drainage layer of local road reconstruction reduced costs and provided for a more stable structure, saving approximately $10 to $14 per tonne of material used. Crushed rock costs approximately $25 per tonne as compared to crushed concrete at approximately $10 per tonne. We are also recycling a product that would otherwise have been discarded at the landfill, as well as slowing the depletion of aggregate material.

Rearrangement of Hours of Work

A rearrangement of hours of work for Public Works staff improved our ability to meet service levels and reduced overtime in normal winter conditions. A reduction of 25% in overtime from 2006 was realized.

Light Emitting Diode (LED) Conversion Program

During 2007, approximately 90% of the City's traffic signals were converted to LED lamps which use 80% less electricity and last four times longer than incandescent lamps. Savings realized in 2007, with the partial conversion, were $60,000. Long-term savings are expected to be $200,000 per year.

On-Line Construction Specifications

Construction specifications for water and sewer, and roads and sidewalks, were provided electronically on the City's webpage. Previously, hard copies of specifications had to be published and sent to all contractors. The specifications are also more easily updated when required, saving an estimated 80 staff hours per year. Cost savings are estimated at $5,000 per year.

City-Wide Electronic Storm Sewer Model

A computer-based, city-wide electronic model of the City's storm sewer system was completed. This model will significantly reduce the time required to determine cost-effective solutions to storm sewer problems. As well, proposed solutions can be tested in the model against historical storms to determine their effectiveness. One example of savings realized was a project to reduce the frequency of flooding on Ferguson Avenue. Before the modeling was done, the proposed solution was to twin the existing piping along Wilson Crescent at an estimate cost of $400,000. The model indicated that a better solution would be to provide storage as close to the flooding problem as possible. As a result of this work, a dry pond was constructed one-half block from the flooding area at an approximate cost of $100,000, providing a better level of protection than the twinned pipe solution, at a $300,000 savings. It is believed that the city-wide model will help to identify many more projects with similar savings.

UTILITY SERVICES

Electrical Transformer Leak Sealing

The power transformers commonly used in the electrical substations are filled with special electrical insulating oil, and are subject to oil leak problems, which often become significantly worse in cold winter weather. It is necessary to correct these oil leaks in order to extend the service life of these transformers and to minimize the potential for soil contamination. In the past, staff have tried to correct the leaks by tightening connections or replacing gaskets where possible, or in some cases, have sent transformers away to be refurbished. This has not always successfully corrected all of these problems.

After investigating other options for correcting these oil leak problems, Saskatoon Light & Power contracted a company that provides an on-site transformer leak sealing service at a much lower cost (savings of approximately $100,000) than sending transformers away for refurbishing; and much less of our tradesmen's time (just over two weeks versus over two years if completed in-house). The leak sealing work was completed on a total of nine transformers in six of Saskatoon Light & Power's substations during the months of August and September of 2007. This work would have taken Saskatoon Light & Power staff over two years to complete. Initial indications are that the leak sealing is very effective, even at the extreme cold winter temperatures.

Apprenticeship Conversion Process

In 2007 Saskatoon Light & Power, in a joint process with IBEW Local 319, started a program whereby, through an attrition process, all the non-trade positions within the Power Lineman and Power Electrician sections will be converted into apprenticeships. This process will allow the utility to have more qualified and trained tradesmen on staff without increasing the overall number of staff. It will address the issue of succession planning with regard to the many pending retirements forecasted within the next four to ten years within the trades sections. It will also provide more flexibility in assigning staff to projects and enhance productivity while eliminating the current practice of requiring restricted non-trade positions to be assigned to job functions easily executed by tradesmen. The process will reduce response times for outages, improve efficiencies in the use of staff and equipment, provide career advancement opportunities for staff, aid in attracting and retaining future staff, and provide superior customer service. Once the conversion is complete, savings of at least $300,000 per year are expected.

Material Requisition Tracking Program

This computer program, developed by one of our staff, allows for the tracking of material required for all Saskatoon Light & Power capital projects. It utilizes the information from both the Epicor and Timberline programs which provides real time data on the tracking of material requirements, ordering of material, and allocating of material on hand. This information is accessed and utilized by Saskatoon Light & Power management, operations staff, technologists and stores personnel for material needs and ordering. It can also be utilized by management and staff for tracking the status of the assignment of work orders. Savings of approximately $20,000 per year in staff time are expected to be realized.

Tree Trimming Maintenance Bucket Truck

Saskatoon Light & Power acquired a combination tree trimming/chipper bucket truck designated for use in trimming trees away from high voltage power lines. Tree contact with high voltage lines is a significant cause of outages. The utilization of this combination bucket truck greatly reduces the necessity of assigning the regular equipped bucket trucks and staff to tree trimming. Having a crew dedicated to tree trimming will reduce power outages and thus overtime costs, and provide our customers with an even more reliable delivery of electrical service. Annual direct savings could be in the order of $50,000 to $100,000 depending on the number of storms that occur.

Train-the-Trainer Program

In 2007, Saskatoon Light & Power trained two individuals to develop and provide in-house training programs to educate and train staff on such devices as: aerial device trucks (bucket trucks), tree chipping unit, forklift, skid-steer and digger/derrick trucks (crane). This reduces the requirement of hiring off-site trainers and/or sending staff to an off-site trainer. As well, the trainers will be available for providing the training programs to other civic staff utilizing this type of equipment. The program will continue to be developed to provide formalized training on all Saskatoon Light & Power's equipment, ensuring qualified, trained personnel are operating all equipment. Potential savings in direct training costs are in the order of $20,000 per year, not including any travel or per diem expenses.

Power Producers Policy

A Power Producers Policy document was prepared by Saskatoon Light & Power and approved by City Council. The policy document and an Interconnection Guideline were placed on the City of Saskatoon website. These documents provide definition and clarity to those considering the connection of distributed generation to the Saskatoon Light & Power electrical distribution system. This will further enhance the City of Saskatoon's promotion of, and commitment to, the adoption of green energy initiatives. It also clearly supports the administration's implementation of greenhouse gas reduction programs. Having these documents on the website will reduce the number of calls to our technical staff. This document and guideline on our website can provide valuable information to customers that will assist them in their decision on whether this process is in their best interest. We anticipate savings of approximately $10,000 per year.

Safety

Saskatoon Light & Power's Safety Management System uses a strategic approach to prioritize the elements of the system and safety initiatives. This approach achieves the greatest results within the shortest time frame. Our goal is to reduce worker injuries and to maintain a safe and productive work force. In 2007, Saskatoon Light & Power purchased Safety First software to track and ensure that Saskatoon Light & Power staff is current in all safety training requirements. Savings in WCB and lost time costs are expected. We are also committed to protecting our customers and staff from injury caused by electrical contact.

LED Lights

Saskatoon Light & Power converted 15,802 of the City's 20,222 decorative incandescent Christmas street light bulbs to LED bulbs. The remaining bulbs will be converted when LED bulbs are available for those types of decorations. The conversion to LED bulbs will reduce the electrical consumption by 56% now and 78% when the remainder is converted. All the decorative lights on the trees at the Saskatoon Light & Power Operations Centre are LEDs. Savings in energy costs of approximately $3,000 per year are expected. This does not include an expected reduction in maintenance cost as a result of longer bulb life and colour retention.

Network System Upgrade

The installation of high voltage primary interrupters and a communication system in the downtown underground secondary network system will provide for public safety. Saskatoon Light & Power will experience more efficient switching capabilities, as well as a continuous monitoring system. Direct savings in labour is expected to be approximately $20,000 per year.

Fiber Communication Network

Though not complete, the fiber network installed to date provides fast and accurate data from remote stations and network vaults to Saskatoon Light & Power's office. This fiber network will eventually reduce communication costs for the City, and will provide a vast quantity of data faster and in a more secure and reliable means. Saskatoon Light & Power expects direct savings in labour of approximately $20,000 per year.

U-Pass Program

Saskatoon Transit implemented a universal bus pass program (U-Pass) with the University of Saskatchewan Students Union. This program provides all undergraduate students unlimited transit use during the fall and winter University sessions at a cost of $59 per semester. This program has dramatically increased transit ridership.

Transit Ridership Increased 17.15%

In 2007, Saskatoon Transit experienced a 17.15% increase in ridership. This is the largest ridership increase in its history, and the largest increase among transit properties in Canada. The record-setting ridership increase is due to the implementation of a completely new transit system in July of 2006, the U-Pass Program, and the Discounted Bus Pass Program.

Conversion of Conventional Transit Fleet to Biodiesel

Saskatoon Transit converted its entire conventional Transit fleet to a canola-based methyl ester biodiesel. This has resulted in increased fuel efficiency of 3.5%, greenhouse gas reduction of 8%, and a reduction of engine wear of 30%.

Gain Share Program and Sick Leave Absenteeism

Saskatoon Transit reduced its sick leave absenteeism from 103.5 hours per employee in 2006, to 83.8 hours per employee in 2007. This reduction has created a recorded savings in 2007 of $118,734 due to the success of the gain share program. (1/3 of this savings was paid into the sick bank account, 1/3 to the employees account, and 1/3 remained in the salaries account.)

Access Transit Ridership

In 2007, Access Transit provided 108,088 rides, which is an increase of 7.2% over the previous year; while at the same time, trip denials were reduced by 10% over the same period.

Compost Depot (Highway 7 and 11th Street)

The opening of a compost depot near the intersection of Highway 7 and 11th Street has increased access for the public to drop off leaves and grass. More than 5,600 vehicles delivered over 73,000 bags of leaves and grass to the City's two composting depots. This material will be composted and used in parks throughout our beautiful city. Diverting compostable material from the landfill helps reduce greenhouse gases, extend the landfill life, and allows the material to be turned into valuable compost to be reused.

Garbage Conversion

The conversion of the Riversdale neighborhood from back alley communal containers to individual front-street roll-out containers has reduced the number of container fires, inappropriate material being placed in containers, maintenance to the back lanes, and provides an improved level of collection service.

Smart Car

By replacing a quarter tonne truck with a Smart car in the Environmental Services vehicle fleet, fuel consumption was reduced by approximately two-thirds.

Improved Monitoring at Landfill Scale Site

An improvement to the camera connectivity at the landfill scale site allows the attendant to independently control, move, and monitor the camera for their scale, from their workstation.

Installation of Staircase at Blue Bin Transfer Station

By installing a staircase at the blue bin transfer station at the Landfill, attendants now have faster and safer travel to the upper and lower levels.

Treated Wastewater Reuse

Piping changes, along with increased pumping capacity, allowed for additional use of treated effluent water in place of potable water for various process requirements. It is estimated that this will save an additional $30,000 per year.

Maintenance Apprenticeship Program

To address rapidly changing demographics and the need for stability within the mechanical maintenance division of the Wastewater Treatment Section, support for staff to enroll in a maintenance apprentice program was provided. The program supports internal staff development while maintaining commitment to the organization during a high trade market demand period.